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09/900,460	07/09/2001	Jun-hyeong Kim	Q63313	4214

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EXAMINER

PATEL, DHAIRYA A

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/900,460	Applicant(s) KIM, JUN-HYEONG	
	Examiner Dhairya A. Patel	Art Unit 2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/8/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

la

DETAILED ACTION

1. This action is responsive to communication filed on 12/23/2004. This amendment has been entered and fully considered. Claims 1-20 are subject to examination
2. Applicant's arguments filed on December 23, 2004 have fully been considered.
3. The rejection to the claims 1,7,8,12 and 20 under 35 U.S.C 112 second paragraph is withdrawn

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3,6-7,9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatia et al. U.S. Patent # 6,052,803 (hereinafter Bhatia) in view of Toshihisa et al. Japanese Patent Publication # 2001-053779 (hereinafter Toshihisa)

As per claim 1, Bhatia teaches a gateway (fig. 1, element 305) comprising:

- a first interface which communicates with information appliances (Fig. 1, element 10) connected to an internal network (Fig. 1, element 10a,b,c,d, column 10 lines 26-31);
- a second interface which communicates with information appliances connected to an external network (Fig.1, element 60, column 10 lines 26-31); and

Bhatia fails to teach a controller which, if a control request with respect to either of the information appliances connected to the internal network is received from the information appliances connected to the external network, requests a function performance to a corresponding information appliance through the first interface according to requested control contents. Toshihisa teaches a controller which, if a control request with respect to either of the information appliances connected to the internal network is received from the information appliances connected to the external network, requests a function performance to a corresponding information appliance through the first interface according to requested control contents (Paragraph 92)(Paragraph 93)(Paragraph 95)(Paragraph 96)(Paragraph 97)

The reference teaches having a home device on a home network (appliance in the internal network) and sending an access request from the client terminal (external network) request information (function performance) about the device (information appliance) which are then displayed on the terminal.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Toshihisa's teaching in Bhatia's teaching to come up with a gateway comprising a internal network and external network and controller which request function performance to corresponding information appliance when a control request is received. The motivation for doing so would have been because to control the devices in the internal network from the external network so that one could control the devices remotely.

As per claim 2, Bhatia and Toshihisa teaches a gateway claimed in

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claim 1, but Bhatia further teaches wherein the controller includes:

- a DHCP server (column 43 line 44-45) which allocates and manages different private IP addresses(column 43 lines 55-56) in accordance with a private IP address allocation request from the information appliances connected to the internal network, and receives host names from the information appliances allocated with the private IP addresses(column 43 lines 52-58) (column 44 lines 6-8) (Fig. 13A);

- a DNS server(column 43 lines 44-45) which builds a database(column 43 lines 46-47) in order for the host names and the private IP addresses to be associated in response to an update request from the DHCP server; and (column 43 lines 52-58)(Fig. 13A)

Bhatia fails to teach an application proxy server which transmits a list of the information appliances connected to the internal network in accordance with an access request of the information appliances connected to the external network, and transmits contents which control an information appliance selected from the transmitted list, and, if a control command is transmitted, requests a function performance to a corresponding information appliance according to the requested control command. Toshihisa teaches an application proxy server which transmits a list of the information appliances connected to the internal network in accordance with an access request of the information appliances connected to the external network (Paragraph 101)(Paragraph 102) and,

The reference teaches sending a chart (list) created by HTML description language which has a list of all the home device connected to the home network (internal network) and can be access from the outside (external network).

-transmits contents which control an information appliance selected from the transmitted list, and, if a control command is transmitted, requests a function performance to a corresponding information appliance according to the requested control command (Paragraph 102)(Paragraph 101)

The reference teaching sending menu screen information to the client when the client clicks a specific device from the chart and controlling the device according to the individual.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Toshihisa's teaching in Bhatia's invention to come up with transmitting a list of appliances connected to the network and sending content which control an information appliance selected from the transmitted list and request the function performance to the corresponding information appliance. The motivation for doing so would have been so that user knows which information appliance available for accessing and controlling or active and then clicking on the available appliance for controlling the device.

As per claim 3, Bhatia and Toshihisa teaches the gateway claimed in claim 2, but Bhatia further teaches wherein the private IP addresses allocated to the information appliances connected to the internal network by the DHCP are the C class

addresses defined by the Internet Assigned Numbers Authority (IANA). (column 18 lines 27-40)(column 12 lines 43-50).

The reference teaches private IP address allocated to the workstations (information appliances) connected to the LAN by DHCP are C class address as seen by the IP address assigned.

As per claim 6, Bhatia and Toshihisa teaches the gateway as claimed in claim 2, but Bhatia further teaches wherein the DNS server (column 45 lines 36-37) if any one of the information appliances connected to the internal network (column 45 lines 37-39) makes an inquiry about a public IP address through the domain name with respected to an information appliance connected to the external network, provides the requested public IP address through an inquiry about the public IP address to an authorized DNS server connected to the external network. (column 45 lines 44-53).(column 46 lines 4-32)

The reference teaches providing an IP address by sending a DNS query packet from any of the host connected to the LAN by inquiring about the IP address (column 45 lines 33-39) and providing an source IP address and sending the query to the remote DNS server connected to the remote network. (column 46 lines 21-29).

As per claim 7, Bhatia and Toshihisa teaches the gateway as claimed in claim 2, but Toshihisa further teaches wherein the application proxy server, if a response to the control request is transmitted from the corresponding control-requested information appliance connected to the internal network, notifies the response result to the control-requesting information appliance connected to the external network. (Paragraph 93)(Paragraph 94)(Paragraph 95)(Paragraph 96)(Paragraph 97)

The reference teaches receiving a control request from the client for accessing a home device. In the response an initial screen with a chart of the device and a menu screen (response result) connected to the home network (internal network) is sent to the client (control-requesting information appliance to the external network)

As per claim 9, Bhatia and Toshihisa teaches the gateway claimed in claim 1, but Bhatia further teaches wherein the controller, if a data packet (column 12 line 15) to be transmitted from one of the information appliances connected to the internal network (column 12 line 17) to one of the information appliances connected to the external network (column line 17) is transferred to the first interface, changes an origination address (column 12 line 20-21) and a port from a private IP address (column 12 line 19-20) and a port to a public IP address and a port of the gateway to be outputted to the external network through the second interface, (column 12 lines 15-23) and, if a data packet having a destination address and a port as the public IP address of the gateway is transferred from the external network to the second interface in response to the output, changes the public IP address (column 12 lines 12-13) and the port to the private IP address (column 12 lines 11-12) and the port of the corresponding information appliance to be outputted through the first interface.(column 12 lines 8-15).

The reference teaches a data packet transmitted from the LAN to the remote network changing the source IP address on the packet to the private address into public IP address and a port of the gateway to the remote network (external network)(column 12 lines 15-23) The reference also teaches data packets transmitted from the remote network to the LAN having public address of the gateway is transferred from the remote

network to the LAN and changing the public address to the private IP address and the port of the corresponding information appliance (column 12 lines 8-15).

As per claim 10, Bhatia teaches a method for operating a gateway (fig. 1 305) having a first interface which communicates with information appliances connected to the internal network (Fig. 1 10a,b,c,d, column 10 lines 26-31), a second interface which communicates with information appliances connected to an external network, (Fig.1 60, column 10 lines 26-31) but fails to teach controller which communicates with the information appliances connected to the internal and the external networks, comprising steps of: providing information on the information appliances connected to the internal network if an access request is transmitted from an information appliance connected to the external network; and requesting a function performance to an appliance according to requested control contents if a control request with respect to the information appliances connected to the internal network is received from the information.

Toshihisa teaches controller which communicates with the information appliances connected to the internal and the external networks, comprising steps of: providing information on the information appliances connected to the internal network if an access request is transmitted from an information appliance connected to the external network; and requesting a function performance to an appliance according to requested control contents if a control request with respect to the information appliances connected to the internal network is received from the information (Paragraph 92)(Paragraph 93)(Paragraph 95)(Paragraph 96)(Paragraph 97).

The reference teaches having a home device on a home network (appliance in the internal network) and sending an access request from the client terminal (external network) request information (function performance) about the device (information appliance) which are then displayed on the terminal.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Toshihisa's teaching in Bhatia's teaching to come up with a gateway comprising a internal network and external network and controller which request function performance to corresponding information appliance when a control request is received. The motivation for doing so would have been because to control the devices in the internal network from the external network so that one could control the devices remotely.

As per claim 11, Bhatia and Toshihisa teaches the method as claimed in claim 10, wherein the step for providing the information on the information appliances connected to the internal network in response to the access request from the information appliance connected to the external network includes steps of: providing a list of the information appliances connected to the internal network; (Paragraph 101)(Paragraph 102),

The reference teaches sending a chart (list) created by HTML description language which has a list of all the home device connected to the home network (internal network) and can be access from the outside (external network)

-providing, if any one of the information appliances is selected from the provided list, contents for controlling the selected information appliance (Paragraph 102)(Paragraph 101)

The reference teaching sending menu screen information to the client when the client clicks (selected) a specific device from the chart (list) and controlling the device according to the individual.

As per claim 12, Bhatia and Toshihisa teaches the method as claimed in claim 10, Toshihisa further teaches further comprising a step of, if a response according to the request of the function performance from the information appliance connected to the internal network is transferred, transmitting a result to the control-requesting information appliance connected to the external network (Paragraph 102)(Paragraph 101)(Paragraph 103).

The reference teaches sending to the client a response of the request from the home device by sending self command (by sending Node ID and device information and also by sending a menu screen (result to the control-requesting information appliance) from which a user and click and select to device to control.

5. Claim 4,5,13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatia et al. U.S. Patent # 6,052,803 (hereinafter Bhatia) in view of Toshihisa et al. Japanese Patent Publication # 2001-053779 (hereinafter Toshihisa) further in view of Huitema et al. U.S. Patent # 6,178,451 (hereinafter Huitema)

As per claim 4, Bhatia teaches the gateway claimed in claim 2, but fails to teach the DNS server builds the database by combining a domain name of the gateway and

the host names of the information appliances connected to the internal network at a home, the domain name being registered in advance in an authorized DNS server to the external network.

Huitema teaches the DNS server (column 3 line 34) builds the database by combining a domain name of the gateway (column 3 line 35-36) and the host names of the information appliances connected to the internal network at a home, the domain name being registered in advance in an authorized DNS server to the external network. (Column 3 lines 41-46). Therefore, it would have obvious to one skilled in the art at the time of the invention was made where DNS server builds a database by combining the domain name and the host name of the information appliances and to register the domain name in advance in the authorized DNS server connected to the external network. The motivation for doing so would have been because a computer has access to the authorized DNS server through the internet backbone if it needs to retrieve information from the DNS server, since the domain name is registered in advance in the authorized DNS server connected to the external network which could be a remote network or Internet (column 3 lines 47-49).

As per claim 5, Bhatia teaches the gateway as claimed in claim 4, wherein the DNS server (column 43 line 52), if anyone of the information appliances connected to the internal network (column 43 lines 50-51) makes an inquiry about a private IP address through the host name (column 43 line 51) with respect to another appliance connected to the internal network, provides the requested private IP address with reference to the database (column 43 line 52). (Column 43 lines 52-58).

Although Bhatia is silent on making an inquiry about a private IP address, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention that in order to provide a suitable machine name to IP address resolution it has to make an inquiry about the IP address.

As per claim 13, Bhatia and Toshihisa teaches the method as claimed in claim 10, but fails to teach a step of registering a domain name of the gateway and a public IP address of a system to be associated to each other on an initialization of the system, the domain name being registered in advance in a DNS server authorized in the external network.

Huitema teaches a step of registering a domain name of the gateway and a public IP address of a system to be associated to each other (column 3 lines 34-37) on an initialization of the system, the domain name being registered in advance in a DNS server authorized in the external network (column 3 lines 41-46). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to implement Huitema's teaching in Bhatia and Toshihisa's teaching to come up with where registering the domain name of the gateway and a public IP address of a system and to register the domain name in advance in the DNS server authorized in the external network. The motivation for doing so would have been because a computer has access to the DNS server authorized through the internet backbone if it needs to retrieve information from the DNS server, since the domain name is registered in advance in the DNS server authorized in the external network which could be a remote network or Internet. (Column 3 lines 47-49),

As per claim 14, Bhatia, Toshihisa and Huitema teaches the method as claimed in claim 13, but Bhatia further comprising steps of:

- allocating, if the public IP address of the system is registered in the authorized DNS server (column 43 line 44-45) connected to the external network, different private IP addresses in response to requests of private IP address allocations from the information appliances connected to the internal network(column 43 lines 52-58) (column 44 lines 6-8) (Fig. 13A); and

- receiving host names from the information appliances allocated with the private IP addresses and connected to the internal network, and building a database (column 43 lines 46-47) in order for the private IP addresses and the host names to be associated to each other(column 43 lines 52-58)(Fig. 13A)

As per claim 15, it teaches same limitations as claim 3, therefore rejected under same basis.

As per claim 16, Bhatia, Toshihisa and Huitema teaches the method claimed in claim 14, but Huitema further teaches the step for building the database builds the database (column 3 line 35) in names combined with the domain name of the gateway registered in advance (column 3 line 36) in the authorized DNS server connected to the external network (column 3 line 41-43) and the host names of the respective information appliances connected to the internal network. (column 43 line 34-46). Therefore it would have been obvious to one skilled in the art at the time of applicant's invention to implement Huitema's teaching in Bhatia and Toshihisa's teaching to come up with to build the database containing the domain name of the gateway and host names of the

respective information appliances connected to the internal network. The motivation for doing so would have been to keep track of the domain name of the gateway and the host name for each information appliances in case of conflict of host name or in order to send packets or messages or retrieve packets.(column 3 lines 33-37).

As per claim 17, Bhatia,Toshihisa and Huitema teaches the method as claimed in claim 14, but Bhatia further comprising a step of providing, if an inquiry about a public IP address is made through the domain name with respect to the information appliances connected to the external network from an information appliance connected to the internal network at a home, the public IP address through an inquiry to the authorized DNS server connected to the external network (column 45 lines 44-53)(column 46 lines 4-32).

The reference teaches providing an IP address by sending a DNS query packet from any of the host connected to the LAN by inquiring about the IP address (column 45 lines 33-39) and providing an source IP address and sending the query to the remote DNS server connected to the remote network. (column 46 lines 21-29).

As per claim 18, Bhatia,Toshihisa and Huitema teaches the method as claimed in claim 17, but Bhatia further teaches further comprising steps of:

-changing, if a data packet(column 12 line 15) to be transmitted from the information appliance receiving the public IP address of the information appliance connected to the external network (column 12 line 17) to the external information appliances connected to the external network is transferred to the first interface, origination address (column 12 line 20-21) and port form private IP address (column 12

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line 19-20) and port to the public IP address and port of the gateway, and outputting the changed origination address and port to the external network through the second interface; (column 12 line 15-23) and

-changing, if a data packet having the public IP address of the gateway as destination address and port is transferred to the second interface from the external network in response to the data packet, the public IP address (column 12 lines 12-13) and port into the private IP address (column 12 lines 11-12) and port of a corresponding information appliance connected to the internal network, and outputting the converted private IP address and port through the first interface. (Column 12 lines 8-15).

The reference teaches a data packet transmitted from the LAN to the remote network changing the source IP address on the packet to the private address into public IP address and a port of the gateway to the remote network (external network)(column 12 lines 15-23) The reference also teaches data packets transmitted from the remote network to the LAN having public address of the gateway is transferred from the remote network to the LAN and changing the public address to the private IP address and the port of the corresponding information appliance (column 12 lines 8-15).

As per claim 19, Bhatia, Toshihisa and Huitema teaches the method as claimed in claim 14, but Bhatia further teaches further comprising a step of providing, if a private IP address is inquired through a host name (column 43 line 51) from any one of the information appliances connected to an internal network (column 43 lines 50-51) at home, a requested private IP address with reference to the database. (Column 43 line 52) (Column 43 lines 52-58).

6. Claims 8,20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatia et al. U.S. Patent # 6,052,803 (hereinafter Bhatia) in view of Toshihisa et al. Japanese Patent Publication # 2001-053779 (hereinafter Toshihisa) further in view of Asami et al. U.S. Patent Publication #2001/0023459 (hereinafter Asami).

As per claim 8, Bhatia and Toshihisa teaches the gateway as claimed in claim 2, but fails to teach the DHCP server, if an interruption request of the use of a private IP address is transmitted from an information appliance connected to the internal network, requests the DNS server to delete the private IP address of the corresponding information appliance and contents related to the host name from the database.

Asami teaches the DHCP server, if an interruption request of the use of a private IP address is transmitted from an information appliance connected to the internal network, requests the DNS server to delete the private IP address of the corresponding information appliance and contents related to the host name from the database (claim 8 from the claims page).

Asami teaches a DHCP server which receives an request of IP address release, which could be (private IP address) or (public IP address) command from the terminal (internal network) and it sends a IP address return command to DNS server to make the DNS server delete the IP address to the corresponding to the FQDN (database) of the DNS server.

Therefore it would have been obvious to one skilled in the art at the time of applicant's invention to implement Asami's teaching in Bhatia and Toshihisa's teaching to request the use of a private IP address from an information appliance and then

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requests the DNS server to delete private IP address of the following appliance and contents related to the host name from the database. The motivation for doing so would have been to avoid having IP address conflict in which it would have been sharing same IP address. (paragraph 54 lines 3-5).

7. Claims 8,20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatia et al. U.S. Patent # 6,052,803 (hereinafter Bhatia) in view of Toshihisa et al. Japanese Patent Publication # 2001-053779 (hereinafter Toshihisa) further in view of Huitema et al. U.S. Patent # 6,178,451 (hereinafter Huitema) further in view of Asami et al. U.S. Patent Publication #2001/0023459 (hereinafter Asami).

As per claim 20, Bhatia, Toshihisa and Huitema teaches the method as claimed in claim 14, but fails to teach a step of deleting, if an interruption request of the use of a private IP address is transferred to the first interface from an information appliance connected to the internal network, the private IP address and contents of a host name of a corresponding information appliance from the built database (claim 8).

Asami teaches a step of deleting, if an interruption request of the use of a private IP address is transferred to the first interface from an information appliance connected to the internal network, the private IP address and contents of a host name of a corresponding information appliance from the built database. (Claim 8 from the claims page).

Therefore it would have been obvious to one skilled in the art at the time of applicant's invention to implement Asami's teaching in Bhatia, Toshihisa and Huitema's teaching to request the use of a private IP address from an information appliance connected to the internal network and to delete private IP address and the contents of host name of a corresponding information appliance from the built database. The motivation for doing so would have been to avoid having IP address conflict in which it would have been sharing same IP address. (Paragraph 54 lines 3-5).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A). Key-Based Technique for assuring and maintaining integrity of firmware stored in both volatile and non-volatile memory" by Bhatia et al. U.S. Patent # 6,052,803

B) "Home Network Gateway device and home maintaining" by Toshihisa et al. Japanese Patent Publication # 2001-053779

C) "Computer Network size growth forecasting method and system" by Huitema et al. U.S. Patent # 6,178,451

D). "DNS server, DHCP server, Terminal and communication system" by Asami et al. U.S. Patent Publication #2001/0023459

9. A shortened statutory period for response to this action is set to expire **3 (three) months and 0 (zero) days** from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the applicant (see 35 U.S.C 133, M.P.E.P 710.02, 710.02(b)).

10.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dhairya A. Patel whose telephone number is (571) 272-4066. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAP


ZARNI MAUNG
SUPERVISORY PATENT EXAMINER